THE VETERINARY RECORD

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COVERING.

By the Veterinary Surgeons Act of 1881 the legislature gave to the profession some very valuable privileges. It also gave powers to the Council enabling them to support their rights against outsiders, and to compel the performance of duties by the members. The fact of having obtained a diploma is not now the legal evidence making a man a veterinary surgeon and permitting his use of the letters M.R.C.V.S. Unless a man is enrolled on the list kept by the Registrar of the College he has no right to call himself a veterinary surgeon, and he has no power of recovering fees.

The register and privileges of veterinary practitioners must be rigidly guarded, not only against the attacks of uneducated pretenders but against the more insidious and dangerous schemes of our own members, One very serious offence against the profession and the intentions of the Act of Parliament is for a M.R.C.V.S. to so act as to assist an unqualified person in evading the penal clauses. An unregistered man may not call himself a veterinary surgeon, nor his premises a veterinary establishment. If, however, an unregistered man can persuade a registered one to protect him from prosecution by claiming that the "title or description" belongs to the latter—which constitutes one form of the offence known as "covering"—then we can only enforce the spirit of the Act by depriving the "protector" of his rights. The Body Corporate cannot permit its members to make money by misusing their titles and privileges. There aredifferent ways of "covering," and it may be well for the Council at first only to attack those which are most pronounced. For a qualified veterinary surgeon to enter into partnership with an unqualified man, and so enable his partner to enjoy all the privileges which by the 1881 Act are reserved solely to M.R.C.V.S. is the most flagrant example of covering. In such cases it has been suggested that if only both parties are sufficiently hardened and artful it is only necessary for the qualified man to assume the position of "assistant" to render the Council powerless. We should strongly advise any qualified man not to mislead himself on this point or he may at very short notice be deprived of his only legal title to practice. To distinctly assist in committing an offence against the Act is to be guilty of "conduct disgraceful in a professional respect" and Section 6 provides that for this a name may be removed from the Register.

It is unnecessary and perhaps inexpedient for the Council to fully define all the conditions which may render a man guilty of "conduct disgraceful to him in a professional respect." Each case may be considered on its merits, and the want of any authoritative definition will not afford an excuse for breach of the law. That "covering" now exists is pretty well known, and possibly in some instances its authors are really not aware of the powers possessed by the Council, or even that they are doing any legal wrong. The veterinary surgeon who permits an unqualified man to write certificates and use his signature to give them effect is doing an illegal act for which he may be called to account. The veterinary surgeon who lends his title and degrees to bolster up the sale of quack medicines and to share with unprofessional men the profits of the transaction may perhaps be able to avoid punishment, but we doubt it, and shall look forward with some interest to a decision of the point. "Conduct disgraceful in a professional respect" is obviously something very much milder than crime or moral turpitude. It is for our Council to say exactly what it is, and the only appeal against its decision is to the Privy Council. Really it is time we commenced to set our house in order, and to devote attention to the behaviour of registered and qualified men as well as to the offences of those who have no place on our register.

COUNCIL MEETING.

On Thursday last a quarterly and a special meeting of Council were held at 10 Red Lion Square, a full report of which will appear next week. It was very largely attended and notable for the presence of so many gentlemen from distant centres. It speaks well for the profession when its leaders display so much interest and incur such trouble and expence as is entailed by two whole days in London and a railway journey to and fro of, in many cases, over 500 miles.

THE NATIONAL VETERINARY ASSOCIATION.

On Thursday a meeting of the Council of this Association was held at Red Lion Square. A Provisional Committee was elected to arrange for next year's meeting in London; a grant from the research fund was made to Professor Smith to assist his investigations on the surgical treatment of roaring, and some consideration was given to the general position and prospects of the association. One very serious difficulty was referred to—the extreme dilatoriness of some members in paying their subscriptions. It was suggested that at next annual meeting a list of defaulting members should be read, but this seemed to the Coucsil an unnecessarily penal step, and a small committee was appointed to consider the matter. We are sure the Council will not act harshly, and we hope that when attention is drawn to the fact that the arrears of subscriptions amount to a very large sum, the voluntary action of members will save the Treasurer and Committee from any unpleasant proceeding.

CASES AND ARTICLES.

CASTRATION.

By James Blakeway, M.R.C.V.S., Stourbridge.

I have not the time or inclination to enter on a long controversy about the different methods of castration, but as I have tried all, or nearly all, including the standing operation, operating when cast and tied in *several* positions, with irons, clams, ligature, torsion, scraping, and ecraseur, and these to no little extent, I may perhaps be allowed to make a few remarks. It seems to me that the writers in this and last week's *Records*, when speaking for or against the standing operation, have taken one or two isolated cases and founded their remarks on them.

For instance:—Mr. Hill speaks of two colts bleeding to death after the standing operation, but from what he says this was the fault of the operator. A veterinary surgeon (who operates standing) told me a short time ago of two colts he did last year bleeding to death, this was not his fault, but, as I pointed out to him, the fault of the ecraseur he used. Before this he had operated with clams.

Mr. J. Brown speaks of a colt that had been cast for castration taking 12 hours to dry, and not feeding for 24 hours. I never saw such a thing; and Mr. Brown must know it to be a very great exception to the general rule, at least if he does not his experience must be very limited.

Mr. J. H. Parker's picture of *his* method of catching a colt for the standing operation and the method employed by those who wish to cast one is really too ridiculous. Does he with his vast (?) experience, extending over two years, think that he is the only man who can put a halter and twitch on a colt in a proper manner? He is evidently very young in the profession so I suppose we must excuse his egotism.

Mr. Sadler takes five cases, two done down and three standing, from these he seems to draw the conclusion that the latter is the better way. There must have been something wrong for the two yearlings not to feed.

"Juvenis" speaks of a death rate of 1 or 2 per cent, this is very high, and he goes on to say that this year he has had no deaths out of 70 operations, but does not say whether standing or cast. I can't see that his figures prove much for either system.

The objections I had to the standing operation were greater risk to the operator, the risk of injury to the colt from throwing himself down, the trouble of having to pay a second visit to take off the clams (Mr. Parker's method seems to get rid of these objections). I never tried the ecraseur standing; the great difficulty in some cases in securing the testicle, and the prevalence of scirrhous cord; this objection also applies to the operation by ligature if thread or silk are used, catgut is far better. Great care when taking off the clams, to break down any adhesions, would to an extent prevent this, but if every care is taken it will occur sometimes, and I often think it must be due to pulling on the cord if the colt struggles much during the operation. I now castrate colts in the following manner, and have found it answer better than any of the others I have tried, but of course another man, from various causes, may not find it answer so well.

Get the colts into a box, shed, or stall, and *being as quiet as possible with them*, I, as a rule, have no difficulty in putting on the halter; then put on a short twitch, tie this to the head-piece of the halter; if the place is too small to cast the colt in, I get him outside, and put on my blinds, this is very necessary and very few colts will give any trouble after it is done; then put on a single side line (on the off side) and a set of shackles, get the colt's hind legs well under him and cast him gently on to his near side, if this is properly done his near hind quarter will come to the ground first; then fasten the off hind leg (leaving the other three in the shackles) in the same way as for a rig, and castrate the colt with the ecraseur, taking off both testicles together, and screwing the handle of the ecraseur round as fast as I can—there is no advantage in doing it slowly; then take everything off and let him up, he will not go many yards before he begins to feed, leaving him out wet or fine, day and night. Very few indeed require any after treatment. It takes much less time to do all this than it does to describe it;—I have caught five colts, four of them had never had a halter on before, cast and castrated them all under one hour, but of course was hard work. I have now cast and castrated over one thousand colts in this way—NOT *including* rigs and ruptured horses, without injuring one and without a single death. When I can see better results from any other method, then, but not till then, will I try it.

I well remember 16 or 17 years ago there was just as much rage after the standing operation as there is now, but it died out, as it will probably do again.

A CURIOUS CASE.

About a month ago I was asked to attend a six year old grey gelding. Found he had inflammation of lungs, and for a day or two was pretty bad, but feeding all the time. About ten days after I saw him first I left him as well as ever he was, but of course weak, and gave instructians as to feeding, exercise, etc., and he was to go to work on Monday last, 9th, October.

On the owner yoking him that day his first action was to walk right up against a stone wall, and then for the first time it was noticed he was completely blind, and to-day he remains so. He feeds well, and works well but cannot see anything whatever, and the most minute examination fails to detect anything the matter with the eyes. During his illness he was never by any means dangerously weak, and when I last saw him, immediately after recovery, his eyes were alright, and his sight perfect.

C. V.

EXTRACTS AND NOTES.

VETERINARY MEDICINE, ITS RISE AND PROGRESS.

By Prof. James M'I. M'Call.

From the Address at the Opening of the Winter Session at the Glasgow Veterinary College.

(*Continued from page* 226.)

In his introduction Snape rather naively remarks: "In his book are a variety of figures illustrating different portions of the body of the horse, and although I approve of these figures to be by us upon occasion; yet this caution I must give to the student, that he do not trust too much to these copies, as I may call them, without practising upon the original body itself: For as it is not possible to make a good commander by viewing only representative armies without practice and experience in real engagements, so it is vain for you to think to attain to the exact knowledge of anatomy by minding the figures only." We are also informed that if the body of horses cannot be obtained to dissect, that those of other animals will do as well, because the organs are similar in situation and relations in almost all animals. From these remarks we have no difficulty in arriving at the conclusion that the facts of comparative anatomy were recognised as of importance even two centuries ago. A fitting final to his introduction appears in the form of a plate, showing the figures of several horses, and underneath it we have the following lines—

"In Fields nor Pastures. Woods nor Forests wide,
Does any Beast So Noble as this Reside.
His Nostrils raise a Tempest when he blows,
His Feet produce an Earthquake when he goes.

Runs he? the swiftest Winds behind retire,
Whilst from his Eyes flow streams of flaming fire
Would'st know his Parts, the following Book peruse,
Which shows of each the Figure, Seat, and Use."

In the body of Snape's work we find many interesting features and noteworthy points, a few of which I will touch upon, in order to give us an idea of the notions which prevailed at that time, and which, looked upon by us from our superior scientific stand point, seem absurd, and yet show a remarkable ingenuity and clearness of reasoning which we cannot but admire, and which we might liken to a man who has found a precious stone which only requires time and patience to cut and burnish it, and thus convert it into a most valuable possession.

The first I will notice is the colour and use of the hair. According to Snape, the colours are various, according as is the humour which doth predominate in the body; for such as the humour is which is driven forth towards the skin for their nourishment, such will the colour of the hair be. As for instance: If the cholerick humour doth most predominate, then are the hairs of a black, a sorrel, or a chestnut colour; if blood most predominate, then will the horse be of a bright bay or roan; if phlegm, then the horse will be of a milk-white or yellow dun; if melancholy, then will the horse be of an iron grey or mouse-dun. As regards their use, these are to cover the skin, to defend it, to be an ornament to it, to suck up that excrementitious, superfluous juice which, through the pores of the skin, is sent from all parts of the body to them.

Secondly.—"The uses of the Fat." The use of the fat is, like a garment, to keep the body warm and cherish the natural heat, which by its clamminess it hinders from evaporating too much; and, on the other side, by its thickness it stoppeth the pores so that the cold cannot enter in. It also fills up the empty spaces between the muscles and the wrinkles of the skin, by which the horse is made plump, smooth, and beautiful; and therefore old, lean, and decrepit horses are deformed for want of fat. It serves also as a pillow or bulwark against any violence either from blows, bruises, or heavy weights, and the like. Finally, it relieveth such creatures as abound with it, in time of scarcity or want of sustenance, by being converted into nourishment; for it serves as aliment, and holdeth the parts of the body in play till the creature attain its proper food.

Thirdly.—"The Separation of the Gall from the Blood, and its Use." As regards its separation, he says that no separation can occur without the presence of some ferment to cause it, and he explains it in this way: A considerable amount of blood comes from the spleen to the liver, and this blood has a sourish, harsh taste as compared with the rest of the mass of blood. This sourish blood, then, mixing with the rest of the blood in the liver, and passing through its narrow vessels, set up a fermentation (just as a piece of sour dough ferments unleavened bread), and in that fermentation the yellow choler is separated from the blood much in the same manner as yeast from beer in a barrel (which it partly resembles in colour), and this fermentation is assisted by the proper nature and faculty of the liver, given by nature to it, and hath also framed this liquor of particles so differing from those of the blood that though the blood pass out of the porta into the cava, yet the choler stays behind and is received by the small mouths of the choler passage." Rather an ingenious, although fallacious observation.

With respect to the uses of the gall, very little fault can be found with his explanation, which I regard as an excellent one. He says: "The use of the gall is, together with the juice that is sent from the 'sweet-bread,' to make a ferment in the first intestine, which serves by its acrimony to stimulate the intestines to expel the excrements contained in them; and seeing there is no gall bladder to store it up in, it passes continually to the intestines, whereby horses come to defæcate oftener than most other creatures; 'which', as Dr. Brown notes, 'was prudently contrived by Providence in this animal, considering his plentiful feeding, the largeness of his intestines, and their various circumvolution. For,' says he, 'choler is the natural glyster, or one excretion whereby nature excludes another.'"

Fourthly:—"The Pericardium, Heart-bag, or Purse of the Heart." This is the coat of skin which compasseth the heart, and in which the heart hangeth. Its use is to preserve the heart, and contain a certain moisture or humour in it; to keep the heart, which is a very hot part, moist and cool, and to make its motion more easy." As regards the origin of the moisture contained in the heart-bag, a variety of opinions seem to have been held in Snape's time. He says: "Some will have it that it is fed by liquors which we drink, of which opinion is the learned Hippocrates, who confirms it by advising the following experiment to be tried on a pig, namely, to keep the pig fasting for some time, then give it water or milk to drink, mingled with vermilion, after which kill it and open the wind-pipe, and also most of its branches. Then you will find along the inside of all the tubes you have opened the colour of the liquid which it drank, even to the extremities of the smallest pipes. And from these pipes our author says part of the liquid has distilled into the heart-bag." This theory Snape considers is not very probable, but he mentions it because of the great fame and antiquity of the author which propounded it. Other authors are of the opinion that it distils out of the kernels under the tongue into the weazand, and from thence into the arteries and heart, and so into the heart-bag; but this Snape says is as improbable as the former. A

late learned author thinks that it issues out of certain glands or kernels seated at the base of the heart, and with regard to this Snape says: "This is an opinion that is somewhat likely, though I think the next is to be preferred before it, which runs thus: "Others (amongst whom is Bartholin) conceive that it proceeds from moist vapours and exhalations forced out of the humours of the heart by the motion and heat thereof, which, being stopped by the closeness of the heart-bag, are by its respective coldness congealed into water."

Fifthly.—"With respect to the Pulsation or beating of the Heart." Snape says it is very difficult, if not impossible, to give any satisfactory reason of it. Some impute it to the flowing in of the animal spirits by the nerves, others to the boiling and rarefaction of the blood in its ventricles; but one thing he considers is certain, namely, that the muscular fibres of the heart are the immediate instruments of its motion, and that these receive their power to move from the animal spirits conveyed by the nerves; but what it is that puts these fibres upon such a reciprocal motion of contraction and relaxation as the heart observes, he, as well as the greatest anatomists of the day, are ignorant of, and therefore he will not pretend to give a reason for it, but only admire the wisdom of the great Creator in framing such an engine so necessary for the conveying of life, heat, and nourishment to all parts of the body.

Lastly.—"Speaking of the Brain," Snape says: "All authors agree that the brain is one of the most noble and excellent parts of the whole body, in proof of which it is placed in the highest situation, and surrounded by strong walls on every side to secure it from outward injuries.

In it are contained the animal faculties of *sense* and *motion*, the former having as a bodyguard the eyes to act as sentinels; the ears to listen to any dangers that are approaching, and avoid them; while the instruments of smell and taste are there to receive necessary and profitable foods, and to reject those which are unpleasant and hurtful, whilst the latter has her dominion extending to the farthest limits of the body, with every limb and member perfectly under her control, and moving this way or that as she may direct.

How any man can say that a horse hath not a brain seems to Snape absurd and ridiculous, yet such exist to his certain knowledge, and persist in their erroneous opinion, and he wonders how any such dolt can have the confidence to take upon him the name of a farrier, and pretend to cure he knows not what. To these his advice is, when next they see a horse knocked on the head to make a careful examination between and below the ears and convince themselves; after which, to take pains and satisfy themselves regarding the other parts of the body, as described by him, and in that way they will improve themselves in their profession, and help him to obtain his wished for end, namely, their advancement.

The next author whose works I will refer to is William Gibson, who wrote during the early decades of the eighteenth century. He acted in the capacity of surgeon to a cavalry regiment, but his love of human medicine seems to have taken a second place to his love for the horse. His most notable contributions to veterinary science were the "Farriers' New Guide," which was an improved edition of the celebrated works of Solleysell, with a considerable amount of original material. "The Farrier's New Dispensatory," which met with a very favourable reception in England, and, lastly, a book on "The True Method of Dieting Horses, etc., with Observations concerning Breeding and the Manner of Raising a Beautiful and Useful Race of Horses." This book turned out a great success, and in the year 1731 had entered upon its third edition. In it we find the first attempt made towards establishment a system of preventative medicine, and as this is now recognised as undoubtedly one of the most important factors which has assisted in raising veterinary science from the level of the shoeing smith, and elevating it to the comparatively exalted position and it now holds, let us give all honour to Gibson for having first brought its claims prominently before the notice of the public. In this book are many points of importance, and attempts are made to combat many of the existing fallacies regarding proper food and hygienic surroundings, etc., of the lower animals. Here first we notice the extreme views prevalent, that the predominant humours of each animal stamped it peculiarity of colour, antagonised, although Gibson does not dispute the fact that certain colours betoken horses to be more durable and lasting than others, as well as more beautiful. He also gives us important imformation regarding the proper conformation of the different parts of the horse, and remarks upon the difference in the size, shape, and conformation of the horses of different countries, which render them suitable to the services and uses required in the land where they are bred, and causes each type to have a beauty and an individuality peculiar to itself. Beauty in animals, he says, includes not only the external make but also that which actuates and gives motion to all the several parts. There is something in a beautiful horse so agreeable that we are charmed, and, as it were, brought into a rapture at the very sight of him, though we are not always able to declare the reason—something the most experienced horseman can better conceive than describe. In the words of Virgil, "His eye is piercing, fixed, and, as it were, unmovable from its object; it is also full and well formed—he has a majestic awfulness in his whole countenance which, is nevertheless, tempered with serenity and gentleness, and all the other marks of true courage. His whole action agrees with his temper; he is fierce or gentle as this or that affection moves him, according as he is provoked or applauded. His muscles appear at every motion, not flabby, but firm and distinct; his veins, like so many rivulets, are winded in an infinite numbers of meanders; his limbs are clean, nervous, and durable, and ready upon every call. A fine horse seems, of all brute creatures, to approach the nearest to man, both for beauty, majesty, and sagacity, and his services are also the most noble and excellent."

As regards the vices of horses connected with feeding, Gibson tells us that the most important one is the "tick," and from his description we have no difficulty in recognising it to be synonymous with the vice of wind-sucking and crib-biting. This he considers to be due to some itching humour or aching pain affecting the teeth and jaw, and the treatment advised is to rub the jaws with salt and water, and remove the horse from any place suitable for the continuance of the vice; also to tie him up by himself for fear he should teach any of the other horses the habit.

Gibson in his dissertation on the method of breeding horses, makes a few remarks which are worthy of consideration. He says, the stallion should be free from all hereditary infirmities, and a most particular point is, that he must have good sound, well-shaped feet. With respect to his other necessary qualifications, I do not think I can do better than give you Virgil's description, which Gibson quotes—

"The Colt that for a Stallion is design'd,
By sure Presages shews his generous kind;
Of able Body, sound of limb and Wind,
Upright he walks on Pasterns firm and streight;
His Motions easy, prancing in his Gate.
The First to lead the Way, to tempt the Flood,
To pass the Bridge unknown, nor fear the trembling Wood.
Dauntless at empty Noises, lofty Neck'd,
Sharp headed, Barrel-belly'd, broadly Back'd;
Brawny his Chest, and deep his Colour Grey,
For Beauty dappled, or the brightest Bay.
Faint White and Dun will scarce the Rearing pay."

On the other hand, the mare ought to be no less perfect than the horse, as he considers that the constitution, temper, and disposition of the offspring is largely moulded upon that of the mother, the two latter probably being associated with the fact that earliest and first impressions, when they are bad, lay the foundation of an ill habit; and, therefore, if a foal has a mother with a bad temper and of a vicious disposition, it is also very likely to develop the same. The other particulars given regarding breeding, treatment, etc., of young horses do not call for special comment, and many of them are, judged by the light of the present time, both absurd and impracticable.

The next author to whom I will refer is Dr. Bracken, who lived about the same time as Gibson, and was well known as a man of learning and a sportsman. He wrote several works, which were pretty much after the style of Gibson, only more condensed.

The next author we will refer to is J. Bartlet, who, like his immediate predecessors, Gibson and Bracken, was also a surgeon. He wrote a book entitled, "The Gentleman's Farriery; or, a Practical Treatise on the Diseases of Horses." This seems to have been the most popular work of its time, and so much was it run after that in the year 1796 it had reached its twelfth edition. In the preface, which is well worth perusal, Bartlet does not forget to give the existing practitioner of that time a severe censuring, advising them that—"if they would pay less attention to the set of paltry receipts handed down to them from their ignorant grandsires, and apply themselves more particularly to the study of the symptoms of the disease shown by their patients, and in its case use a few simple medicines, assisted by the co-operation of nature, then they would have more safety and expedition in their cures, and not be dependent for success so much upon the fact, that the constitutions of some animals, like some fortifications, are bomb-proof, and can support the shocks of the whole medical artillery, as is too often the case." This book, to a great extent, is built of material taken from the works of Bracken and Gibson, and noticeable in its contents are a very accurate and complete description, under the designation of Stag Evil, of the disease now recognssed as tetanus, and also a cure for farcy; besides which we find the detailed account of the cause and seat of glanders, as described by La Fosse (the French king's farrier), carefully considered, and his method of trepanning commented upon; and lastly, a new method of nicking horses' tails, with a description and engraving of the machine employed.

Succeeding him came Osmer, who began life as a medical practitioner, but, finding the treatment of animals more congenial to his taste, he renounced his former calling and commenced practice as a veterinarian. He turned his attention more particularly to the lamenesses which affect the horse, and wrote a book on the subject, in which he says that the method of shoeing adopted at that time was, in his opinion, responsible in a great measure for many of the lamenesses which were prevalent, and to combat this he brought before the notice of the public a new method of shoeing, which was undoubtedly a great success, and continued in vogue for many years.

The next author whom I will bring before your notice is John Wood, formerly farrier to the King of Sardinia, but who latterly settled as a veterinarian at Cheshunt, in Hertfordshire. He wrote a work entitled "A New Compendious Treatise of Farriery," which, in 1762, reached its second edition. Contained therein we find a few points worthy of notice. For example, his treatment of colic is good, and his remarks on shoeing, in which he condemns the use of the excessively heavy shoe, are worthy of passing comment. However, one's admiration for him cannot reach a very high pitch when we notice that he still holds some very antiquated notions regarding muscular contraction, and the composition of the blood, and in their explanation brings forward reasons which are unsupportable and hazy in the extreme. He also gives us an erroneous description of the course the Bot worm takes in reaching its destination in the horse's stomach, which is rather ingenious. It reads thus:—"The Bot worm is the offspring of a fly which is only found in open places, hence horses going to grass, and those kept in the country, are most affected. When the fly wants to deposit its eggs it gets under the horse's tail, creeps into the anus, and glues its ova to the internal coat of the rectum so fast that the dung in its passage cannot rub them off. They are there hatched, and produce a worm composed of several rings, furnished with short, strong bristles, so disposed as to hinder its going backwards, but to facilitate its progress up the intestines towards the stomach, where it finds its proper food. There it fastens itself by means of two strong unciform teeth, and remains until such time as it is again turned to its nymph state. These worms are then voided and changed into the same sort of fly as their mother. If these worms are not destroyed, then when they attain their full growth, not finding sufficient food in the stomach, they eat through the walls, get into the abdomen in search of food, and destroy the horse."

The next point of importance in the history of veterinary medicine is the action of the French Government in founding a veterinary school, and to them belongs the honour of having first reduced the principles of the veterinary art to a foundation of regular science. On the 5th August, 1761, the Council of State issued a decree empowering M. Bourgelat to establish in the City of Lyons a school in which might be taught the knowledge and treatment of diseases incident to cattle of every description. Towards its support they granted a sum of about £350 a year, payable for six years, to defray expenses of house rent, build a complete establishment, and allowed the institution to retain all monies taken in fees, etc. The first school was opened on the 1st of January, 1762, and continued to advance in prosperity, and to do good work for the benefit of the kingdom and the brute creation, to such an extent that in the year 1764, as a mark of his satisfaction, the king permitted the school to assume the title of the Royal Veterinary School. Soon afterwards, in the year 1765, a second school was founded at Alfort, near Paris, and up to the present date remains. To the French schools flocked pupils from almost every country in Europe, with the exception of England, and soon afterwards these countries founded schools of their own, the most notable of which were in Vienna, Denmark, Sweden, and Prussia, while Britain still remained in the background. This state of things continued in Britain until the year 1791, when the Veterinary College of London was established, but during the 30 years preceding this some authors wrote whose works deserve passing notice. Among these contributions we find one entitled "The Farrier's and Horseman's Complete Dictionary," by Thomas Wallis, surgeon. This work is of the most complete kind, and embodies in it all the then known diseases, arranged in alphabetical order, and described in the form of extracts from the works of the most noted authorities on veterinary matters, such as Gibson, Bracken, Bartlet, La Fosse, and Wood, besides which there are numerous interesting points regarding medicines, shoeing, stable management, ménage, and the dieting of horses. This book ran through numerous editions, and was highly prized. After him came James Clark, the King's Farrier in Scotland, who wrote a book entitled "Observations on the Shoeing of Horses, together with a New Inquiry into the Causes of Disease in the Feet of Horses," and subsequently a work on the "Prevention of the Diseases of the Horse Generally." The former work reached its third edition in the year 1782, and was deservedly popular. In it are many noticeable points, and a lauda-

ble attempt is made to improve upon the existing method of shoeing, which the author characterises as consisting of a process whereby the hoof is first destroyed by paring, and then the defect supplied by putting on a broad, strong shoe.

Time will not permit of me going into this book in detail, and the only other point I will draw your attention to is his description of the disease termed "founder," which for the first time is brought before our notice in its proper light. Previous to this time the disease was supposed to be due to the grease or fat in the horse's body becoming, as it were, melted, and by the force of gravity falling downwards and lodging within the horny box of the horse's foot, or some other equally nonsensical idea; but Clark seems to have devoted a considerable amount of time in investigating this matter, and has arrived at conclusions regarding its pathology, which are almost identical with those now held and found to be correct. About this same period a book appeared entitled "Every Man His Own Farrier," which was simply a collection of the favourite medicaments used by the Farriers of the time, some of these of the most barbarous description, and was published at Winton in 1780 by Sir Paulet St. John, Bart., of Farley, Hants. It is unworthy of further notice.

Last of all I will refer to "The Gentleman's Stable Directory; or, Modern System of Farriery," written by William Taplin, surgeon, which reached its fifth edition in 1788. On perusing this work what occurs to one is, that for flowery language, fertility of resource, and egotistical ideas, Taplin stands probably unequalled, and certainly unsurpassed, by any of his contemporaries; but at the same time, his arguments are so specious, and his reasoning so seemingly sound, that in his combating of many of the existing treatments of diseased conditions, even in his most sarcastic manner, he has proved one of the best friends to the suffering animal and easily imposed-upon owner.

He takes every opportunity to depreciate the works of his predecessors, Snape, Gibson, Bracken, Bartlet, La Fosse, etc., but at the same time leaves himself open to severe criticism on many points, one of which is conspicuous, for when we come to his article on Jaundice, or the Yellows, we find him giving a detailed description of the gall bladder of the horse (a non-existent organ in that animal), which, he says, lies between the two lobes of the liver, and this itself proves, even to the most incidental observer, that Taplin himself was not altogether accurate, and did not scruple to indulge a little in assumption. We also find that when we come to the conclusion of his book, that over and above his love of self-glorification, which is conspicuous through all its pages, there is a printed advertisement pertaining to himself and his medicines, which savours to a great extent to that which he professes to condemn in every shape and form, namely, quackery.

Now the question comes, what did all these authors do, whose books I have mentioned, towards the advancement of veterinary science? In answer to this I say, they kept it prominently before the eyes of the public, and did much to free it from the empiricism which pervaded the works of their ancient predecessors, but at the same time their practice and their prescriptions were so largely made up of cruelties, improper treatments, rash assumptions, and incongruous ingredients, that the wonder is not, why so many animals died under their hands, but why any escaped at all. However, the same thing in early days may be said to apply with equal accuracy to the treatment and practice adopted by members of the sister profession towards their unfortunate patients: and as the latter profession improved its position, and disease came to be better understood and more rationally treated, so did the art of veterinary medicine make rapid strides to the front in this country as well as in others. Soon teaching institutions in veterinary medicine were formed, and in the year 1791 we find the Veterinary College of London an accomplished fact, with Charles Vial de Sainbel as its professor, His Grace the Duke of Northumberland as president, and as its vice-presidents and directors many of the most eminent and titled men of the day.

After the foundation of the London School the study of veterinary medicine was taken up with renewed vigour, and students attended in gradually-increasing numbers from far and wide. Soon Scotland followed suit, and in the year 1822 Professor Dick founded a school in Edinburgh called the Royal (Dick) Veterinary College, which still exists, and is now carried on under the able Principalship of Professor Thomas Walley. Subsequent to this, in the year 1861, the Glasgow Veterinary College was founded by our present worthy Principal, and in its uninterrupted run of success, stands forth as a prominent memento to his ability, hard work, and perseverance. And, lastly, in the year 1873, Principal Williams established the new veterinary college in Edinburgh, which is equally worthy of being placed upon the same platform as its sister institutions.

Now, what have these and similar institutions done for veterinary medicine? Well, they have raised it from being a mere art, and enabled it now to rank as one of the most important sciences, and to take up the position which it now holds, not only of dealing with the diseases of the lower animals, but also of assisting, regulating, and controlling the cattle traffic of this country, and of proving of incalculable importance in many ways which were undreamt of by our empirical ancestors. The days of empiricism have now vanished, and been replaced by sound reasoning. Imaginary diseases have now assumed a stern reality, and the exactness of diagnosis regarding animal maladies can only find a counterpart in the study and practice of human medicine. The veterinarian, who previously was a man of little or no culture, with the advance of education has developed into the scholar, and from the scholar is now in the fair way of developing into the learned scientist. Our preliminary examinations are now much stiffer, the number of our classes increased, and the time of our studies lengthened, and with this gradual progressive turning of the educational wheel, who can say to what a position the veterinary surgeon of the future may not aspire.

ACORN POISONING.

Introductory Remarks.

The following observations on the ill effects of acorns were originally published in *The Veterinarian* by Professors Simonds and Brown, in consequence of the very severe losses sustained by the owners of young cattle, in particular, in several parts of the country where oak tress abounded in pasture land.

The years 1868 and 1870 were remarkable for the great yield of acorns in connection with a scanty supply of herbage, causes which undoubtedly led to the production of the disease in question, and opened up a new inquiry as to the influence of acorns on the animal organism.

Acorn Poisoning.

A difficulty has frequently been both felt and expressed by practical men in reference to the use of the word "poisonous" as applied to acorns, which are universally recognised as valuable articles of food. It is alleged with truth that animals of various kinds eat acorns with impunity, and that pigs particularly thrive upon them, even when they are allowed to partake of them in unlimited quantities. Deer consume them, and cattle also in ordinary seasons without being so markedly affected

thereby as to excite attention, unless from eating them to excess.

It has long been known that acorns are injurious to animals under certain conditions; hungry sheep have died soon after they have been turned into pastures where the nut has been plentiful; cattle have suffered from impactment of the husks in the Omasum, and even pigs which would seem to live on acorns with impunity, are believed by many persons to be affected with hardening of the muscles and the accumulation of small masses of indurated matter in the flesh, in consequence of too large an indulgence in their favourite food. The disease, however, to which we refer under the name of *acorn poisoning* is not due to an accumulation of acorns in the stomach or intestines, nor is it the consequence of their astringent action. On the contrary, the worst form of the malady is often developed after all the acorns have been digested or expelled from the system, and its most fatal phase is associated with dysentery instead of constipation.

Respecting the chemical constitution of acorns, Prof. Church wrote in the *Chamber of Agriculture Journal* in 1869 to this effect:

"The nutritive value of acorns which have been freed from their cups is by no means inconsiderable; starch, sugar, and oil make up together about half their weight, so that as regards these heat-giving and fat-forming food constituents acorns do not differ widely from some of the poorer kinds of cake. Their deficiency is in the so-called flesh-forming or nitrogenous constituents. Of these important substances recent analysis do not show more than, if so much as, five per cent. to be present in the whole acorn, a proportion which is less than one fourth of that existing in common cotton cake, and not one sixth of that contained in good rape cake.

"But if acorns can furnish only small amounts of these flesh formers, the value of their other feeding constituents must not be depreciated, for the peculiar sugar which they contain exists in notable proportion, about eight per cent., while the fixed oil which is also present in them has been variously estimated at from two to five per cent.

"The drawbacks to the free use of acorns are to be traced to an entirely distinct set of substances; these impart to the seed its astringency and bitterness, and are made up of tannin, a volatile oil, and a bitter principle. Some chemists have extracted as much as nine per cent. of tannin from whole acorns. To destroy the astringency and bitterness, the acorns are either buried in the earth or digested with wood ashes and water. By both these processes the astringent and injurious tannin is destroyed, being transformed chiefly into grape sugar and the comparatively innocuous substance known to chemists as gallic acid."

Acorns in the unripe condition, it would seem, from the preponderance of the bitter taste, contain more of the astringent and bitter principles than those which are quite mature, in which state they acquire some sweetness and nuttiness of flavour. This fact will in some measure explain the occurrence of the greatest number of attacks in the early part of the acorn season. It is at least very probable that the process of ripening has as much influence upon the composition of the acorn as that of digestion in an alkaline solution, or as the partial germination of the seeds when they are buried in the ground.

There is sufficient evidence that acorns, when eaten in excess, are indigestible. It is also satisfactorily proved that they possess an astringent action, which renders them, when properly prepared, medicinally valuable in diarrhœa; but the disease to which we have referred as "acorn-poisoning" is not of the nature of indigestion, and the symptoms denoting its existence are not those which follow the employment of a powerful astringent.

History of the "Acorn Disease."

When the disease which was subsequently traced to the consumption of acorns by young stock was first detected in Kent, in the autumn of 1868, considerable alarm was excited in the minds of stockowners, not only on account of the remarkable fatality of the malady, but even more from the resemblance which was perceived to exist between the symptoms and some of the post-mortem appearances to those of cattle plague—rinderpest.

The first cases of the disease which came under observation occurred among twenty-eight yearling steers and heifers, which were at pasture at Langley Park, Beckenham. These animals, with nine cows, had been sent to Langley on September 30th, 1868, and on their arrival were placed in a part of the park known as the Lower Park. They were in good health at the time, but rather low in condition. On October 7th one of them was observed to be seriously ill, and several others to be somewhat out of health. By the following day the diseased state of the herd was fully established, and, case succeeding case, by October 15th sixteen yearlings and one cow had become affected. Of this number six died, and several of the others were in a precarious condition. The suddenness of the attack, together with the rapid spread and great fatality of the disease, led to the belief that the animals were the subjects of an infectious and fatal disease. The circumstances, however, connected with the history of the outbreak disproved such opinion, and clearly indicated that the disease had arisen from some local cause. Indeed, it appeared highly probable that the attack had depended on the animals having partaken very freely of acorns, which day by day were falling in large quantities from the oak trees that abounded in the enclosure. The herbage in this part of the park was uniformly short in quantity. It did not appear to be objectionable in quality, and no deleterious plants were detected among it.

Had the ill effects depended on the quality of the herbage alone, it would be difficult to account for the fact that fresh cattle coming on the place in the autumn invariably had done well. The opinion that the eating of large quantities of acorns had caused the fatality was strengthened by the circumstance that some animals belonging to Colonel Lennard, of West Wickham, had also been attacked while in the same pasture, but that twenty calves, which occupied a contiguous part of the park, where they could obtain very few acorns, had continued in perfect health. The non-infectious nature of the disease was also shown by the fact that one of the first animals attacked had been put with these calves, and had continued with them down to the time of the inquiry being commenced, and that cattle belonging to other persons which had been located near to the diseased beasts from the commencement of their illness were unaffected.

Symptoms.

The symptoms presented by the sick cattle were very characteristic. In all the cases at the outset the animals were observed to be remarkably dull and dispirited and inclined to separate themselves from each other, and to stand in a crouched position, with the head hanging down. The eyes were sunken, and in many of the animals there was a discharge of mucus, sometimes mingled with blood, from the nostrils, and frequently also a mucous discharge from the eyes was noticed. The internal temperature was natural, ranging between 100° and 102°. The surface of the body was cold and the coat staring.

An irritable state of the intestines was present in most cases, as indicated by the frequent passing of small quantities of fæces, often streaked with blood. Some of the animals suffered from constipation, the fæces being

scanty, black, and hard. The urine was nearly colourless, but the quantity secreted was considerably in excess of the normal amount. The peculiarity of the urinary secretion—*its remarkable paleness of hue*—has been observed in every instance, and may be looked upon as one of the most characteristic symptoms of the "acorn disease."

From the beginning of the attack the animals refused food of all kinds, and the loss of condition was extremely rapid. Even before these animals became seriously ill it was remarked that they were becoming more and more emaciated day by day, and when the desire for food ceased altogether it naturally followed that the debility quickly increased.

One marked symptom of the disease which might serve in a doubtful case to distinguish it from cattle plague was the universal pallor of the mucous membranes, the conjunctiva, the Schneiderian membrane, the buccal membrane; and the membrane of the vagina were alike pervaded by a pallid hue, variegated here and there with petechiæ, which seemed to render the prevailing paleness more obvious. The membrane of the roof of the mouth was in several instances extensively abraded, and presented the appearance which in the early period of the prevalence of cattle plague was thought to be specially indicative of that disease. One animal presented this lesion in so marked a form that it could only be compared with some of the worst cases of cattle plague which had been met with. The greater portion of the palate was denuded of its epithelium, and the raw surface of the subjacent tissue was apparent. The respiration was quick and short, and carried on with very little movement of the flanks. A peculiar moan accompanied the expiration in some animals which were most severely affected; this sound, occurring, as it did, in the middle of the expiratory effort, reminded the observer of the last stage of rinderpest, and when it was associated with other signs of that disease—for example, the dejected appearance, dependent head and sunken eye, and twitching and trembling of the muscles—it was not remarkable that at the outset a suspicion of the return of cattle plague had arisen. Symptoms of cerebral derangement were observed in several cases, and, in fact, all the affected cattle in the latter stages of the disease became in some degree lethargic. The occurrence of this drowsy condition, in connection with the absence of the normal colour of the urine and its low specific gravity, led to the conviction that non-elimination of effete matters from the blood by the kidneys was one element, and possibly a very important one, in the disease. No opportunity, however, occurred of verifying the impression by chemical analysis.

Post-mortem appearances.—Several of the animals which had died just before the commencement of the investigation in Kent were examined, and the following morbid appearances were observed:

In the digestive organs the evidences of the effects of the disease were very marked, and in several instances there was so much destruction of tissue that it was difficult to avoid the conclusion that some powerful irritant poison had been administered. Usually the rumen was healthy, but in a few cases there were spots of submucous hæmorrhage on the muscular bands, and occasionally spots of congestion were seen on the general lining of the viscus. The reticulum was mostly healthy.

At the entrance of the omasum, in several cases, the tissues were broken up, and presented a torn and ragged appearance, and many of the edges of the leaves of this stomach were in a similar condition.

Sometimes hard masses of masticated acorns were impacted between the leaves, but very commonly no trace of such existed in any part of the alimentary canal; indeed, some of the animals were not attacked with serious illness until several days after they had been removed from the acorn pastures.

The abomasum was in many instances congested in patches, and the edges of the folds of the mucous membrane were often œdematous.

No structural changes were detected in the intestines; the contents of the tube were generally fluid, and in the large intestine the dark lines due to venous congestion, and distinguished as a lesion of cattle plague, under the name of "zebra-markings," were present.

Speaking generally, the morbid appearances were indicative of blood poisoning, varying to some extent, according to the duration of the disease, but maintaining—all over the country—sufficient uniformity to prove that the same cause was in operation to produce the effects which were observed.

Outbreaks of the disease occurred simultaneously in different parts of the kingdom and cases were investigated in Kent, Middlesex, Herts, Lincolnshire, Derbyshire, Herefordshire, Surrey, Suffolk, and Norfolk.

In every instance the outbreak followed upon the fall of acorns. Very few adult cattle were attacked, but of young stock scarcely any of those which partook of acorns entirely escaped.

No disease of the kind appeared in districts excepting those where acorns abounded, and in all parts of the kingdom the malady was characterised by symptoms and lesions which were nearly identical in character. Remidial measure failed everywhere.

The symptoms and morbid appearances, in the cases which were investigated during the outbreak in 1870, were in all respects identical with those which have been recorded as characteristic of acorn poisoning in 1868. At first the animals were observed to be "doing badly;" their movements were tardy, and a peculiar dreariness of aspect was apparent. Constipation was generally present, the coat was rough and harsh to the touch, and the skin tightly adherent to the body. This condition of things continued for some time at least, without any modification which was apparent to the herdsman, until one or two animals became suddenly worse, or, perhaps, were found dead in the field.

If the nature of the disease was at once discovered or the cause suspected, the rest of the herd was removed from the pasture; this precaution, however, was in very many instances adopted too late to save the majority of the animals. Thus after an interval of a few days others would become sick, notwithstanding their complete abstinence from acorns, and, indeed, from all kinds of food save that which was given with the drenching horn. In many instances the greater part of the herd succumbed; some of the animals being attacked with fatal illness ten or twelve days after their removal from the pastures.

Prevention.

Prevention is not only better than cure in respect of acorn-poisoning, but it is also much more easily ensured. A little care and forethought will be required to properly carry out the necessary precautions; but no doubt need be entertained respecting their efficacy. It is an important fact that no cases of the disease occurred on Hadley Common, near Barnet, although the place is well covered with oak trees, and plenty of cattle are turned out to graze during the acorn season. The solution of this problem was furnished to us by the custodian, to whom we applied for information respecting the customs of the locality. It appears that no restriction is put upon the collection of acorns by the people, and we were informed that a "hundred pickers or more would be often at work at one time on the common."

So long as permission is given, even though it may be tacitly, to persons to collect gratuitously acorns, which are worth something over a shilling a bushel, there is

very little risk of animals pastured on the common getting poisonous quantities of them.

It may still be urged with truth that no poisonous principle has been discovered in acorns, but the same thing is true in respect of herbage growing under certain conditions, or on particular soils. The grass from the scouring lands of Somerset does not present to the chemist any characters to which its noxious qualities can be with certainty referred. In many parts of the kingdom young cattle cannot graze on pastures which are harmless or beneficial to older stock, and practical men speak of "land which is too strong" or "herbage which is too rank" for young stock. Science has yet to furnish an explanation of these mysteries, but observation has shown that provender which in some seasons is wholesome in others is deleterious, and we should at least be wise to accept the facts, and pursue the course which experience indicates, without waiting for a complete answer to the question, wherefore?

Many problems in physiology present themselves for solution, and among the most important in its bearings upon the well-being of our flocks and herds is the exploration and clear definition of the conditions under which the food which should support the organism becomes the poison which destroys its vitality.

THE JEWISH MODE OF CATTLE SLAUGHTER

Great interest was aroused in Aberdeen Police-court on Friday last by the prosecution of the Rev. James Littman and Mr. Alexander Zamek on a charge of cruelty to animals. Bailie Kemp presided. The charge was in the following terms:—"That the Rev. James Littman and Alexander Zamek, residing in Aberdeen, did, on August 20, in premises in Hutcheon-street, Aberdeen, occupied by James M'Intosh, butcher, cruelly ill-treat and torture a bullock, their property, then in their custody or control, and this they did by tying the feet of the bullock and throwing it violently on its back on the concrete flooring of the premises, without providing any straw for it to fall upon, and then and there cutting the throat of the bullock in an unskilful manner, therefore causing the animal, in consequence of its being not properly fastened, to struggle violently, and the fastenings of its feet to break, the animal continuing to struggle and suffer great pain for five minutes before it died, contrary to the Cruelty to Animals (Scotland) Act, 1850, by which they were each liable to imprisonment not exceeding three months, or otherwise to a penalty not exceeding £5 with expenses, and failing payment to imprisonment for a period not exceeding one month." The object of the prosecution is to test the legality of the Jewish method of slaughtering cattle, which is in accordance with the Mosaic law, but which differs from that practised in European countries.

It may be remembered that an article appeared in *The Times* of September 11 announcing that a law had been passed in Switzerland to make the Jews' mode of killing illegal, and discussing the subject generally.

The clerk of the Court having read the complaint, which is at the instance of the Aberdeen Association for the Prevention of Cruelty to Animals, the respondents tendered a plea of "Not guilty."

Mr. William Sim, solicitor, appeared for the defence, and the Rev. Jacob Pearse, Edinburgh, also appeared in defence of the respondents.

A witness named Sinclair said the ordinary mode of slaughtering oxen in Aberdeen was by striking the animal with a pole-axe, which produced instant and painless death.

Charles Farquharson, flesher, stated that the animal was greatly excited because it was so long tied down, and there were too many people at the door. It was tied to the ring in the ordinary way and kept there for about ten or 15 minutes. The Procurator-Fiscal asked the witness if this was usual. The witness said no; the animals were knocked down as soon as they were pulled down to the ring. He spoke to Mr. Zamek about it, and said he did not believe in killing cattle in the way that the bullock had been slaughtered. He said to Mr. Zamek that that was one thing to which he objected on principle, that was keeping the beast so long in an excited state.

James Thompson veterinary surgeon, described the usual mode of killing cattle, stating that they were rendered insensible at the first blow, and that any struggling which followed would be unconscious struggling. In response to a question by the Procurator-Fiscal as to whether he considered the Jewish method of slaughter cruel or humane, witness replied that the animal was subjected to unnecessary pain.

In your opinion, is this a humane way of slaughtering an animal?—I think not.

Mr. Sim:—It is perfectly common for a beast to require two or three blows before it is knocked down.

Witness:—It is not very common. It will happen occasionally.

Evidence for the defence was given by Dr. Robert John Garden, who stated that from what he had heard of the two modes of slaughtering cattle there was not much difference between them practically. The only difference would probably be that for an instant the animal killed by the Jewish method would feel the primary cut. There would be as much pain in one case as in the other.

The Procurator-Fiscal:—You have heard the mode described in which the minister cut the animal's throat. Assuming that the arteries were cut, would the animal feel pain?—The beast would rapidly become unconscious, and after this would feel no pain.

The Rev. Jacob Pearse, who was the next witness, said he had been a Jewish Rabbi for 26 years. Rabbis had to undergo a course of training for killing animals for human food. They received instruction at the Jewish College. Asked to describe the mode of slaughter, witness said that the throat was cut, and then it was considered that life was quite done and that the beast could not feel any pain at all.

As a rule, what time elapses from the moment when the bullock goes into the slaughterhouse to the moment when its throat is cut?—About four or five minutes, until it is perfectly dead.

Alexander Duff Dunbar, veterinary surgeon, Aberdeen, said he had heard the two modes of slaughter described, and in his judgment the Jewish mode was the more humane.

The Procurator-Fiscal then addressed the Bench. He said he did not think he had made out that the animal was in any way badly treated by being thrown down. The only question was whether it was humanely slaughtered. He thought the bulk of the evidence showed that the regular mode of slaughter rendered the animal unconscious at the first blow. It was for his Honour to say whether the manner in which this animal was slaughtered was reasonable or whether an amount of pain was inflicted which could have been avoided.

Mr. Sim pleaded that there was no cruelty in the case either in fact or in law.

Bailie Kemp said that, in view of the importance of the case, he had taken very careful notes, and he proposed to consider the matter until Monday morning.

Judgment was pronounced in the Aberdeen Police-court on Monday in the case in which the Rev. James Littman and Alexander Zamek were charged with having cruelly treated a bullock, which they slaughtered according to the Jewish mode. The evidence was reported in *The Times* of Saturday. Before deciding the case the magistrate stated that during the past fortnight he had received a large number of communications, both printed and written matter, apparently bearing on the question before the Court. He wished the Court to know that he had read none of them. He found that no evidence had been brought to prove that Alexander Zamek took any part in the proceedings beyond that of onlooker. The judgment in this case would be "Not guilty." In the case against the Rev. J. Littman his Honour found the charge "Not proven."—*The Times.*

CENTENARY OF THE DEATH OF JOHN HUNTER.

On October 16th, 1793, John Hunter died, aged 64. The fall of the centenary of that event within the present week naturally brings all the circumstances connected with it into prominence once more. One of the best accounts of the tragic event is given in Drewry Ottley's life of the great surgeon which is attached to Palmer's edition of Hunter's works. For a few years preceding 1793 unhappy disagreements had existed between Hunter and his colleagues at St. George's Hospital. The former displayed a blunt and overbearing manner towards other members of the staff, who considered that he attended to physiology more than surgery, and looked upon him as an innovator and an enthusiast. Early in 1792 Charles Hawkins resigned the post of surgeon to the hospital, and Keate and Home competed for the vacancy. The latter was supported by Hunter, the former by all the other medical officers except Dr. Baillie. Several Royal Dukes voted for Keate, who was chosen by a majority of 134 against 102. Early in 1793 Hunter decided no longer to share equally with his colleagues the admission fees of the pupils, since the majority of the students entered under his name. The matter was submitted to the decision of the governors at a Special Court held in March. Before that date Hunter forwarded to each subscriber a letter setting forth his view of the question and charging his colleagues with neglect of their duties. The reply of Hunter's opponents was a lengthy document. The decision of the Court was given against Hunter. A committee subsequently drew up the code of rules for regulating the admission and instruction of pupils. Amongst the regulations was one which determined that no person should be admitted as a student of the hospital without bringing certificates that he had been educated to the profession. This regulation, it was believed, was designed to exclude Hunter's countrymen, who sometimes came to London recommended to him, and entered as his pupils at the hospital without having had any previous medical instruction. In the autumn two young men came to town, ignorant of the new regulation, and applied to Hunter to be admitted under him at the hospital. He undertook to press for their admission at the next board-day, October 16th, though he was apprehensive that if any unpleasant dispute should occur it would prove fatal to him. "Arrived at the hospital, he found the Board already assembled, and, entering the room, presented the memorial of the young men. . . . . In the course of his remarks he made some observation which one of his colleagues thought it necessary instantly and flatly to contradict. Hunter immediately ceased speaking, retired from the table, and, struggling to suppress the tumult of his passion, hurried into the adjoining room, which he had scarcely reached when, with a deep groan, he fell lifeless into the arms of Dr. Robertson, one of the physicians of the hospital, who chanced to be present. Dr. Baillie had immediately followed him from the board-room, and Mr. Home, who was in the house, was also summoned to his assistance. Various attempts were made for upwards of an hour to restore animation, under the hope that the attack might prove to be a fainting fit such as he had before experienced; but in vain; life had fled, and, all their efforts proving useless, his body was placed in a sedan chair and conveyed to Leicester Square, followed by his now vacant carriage." The body was examined after death. The carotid arteries and their branches within the skull were in parts thickened and ossified. The heart was small and wasted. Two opaque white spots were seen on the left auricle and ventricle. The branches of the coronary arteries ramifying through the heart were converted into long tubes, with difficulty divisible by the knife. The mitral valves were much calcified. The aortic valves were thickened and the inner surface of the aorta was studded with opaque and elevated spots. Hunter's body was at first interred in a private manner in the Church of St. Martin-in-the-Fields, whence it was removed to its present fit resting place, Westminster Abbey. During the hundred years elapsed since Hunter's death the world's deep indebtedness for much of the present advanced position of surgery to Hunter's incomparable industry and genius for experimental research has been more and more widely acknowledged.—*The British Medical Journal.*

IMPORTED MILK.

The drought of the past summer, and the consequent scarcity of milk, has had the unfortunate result of promoting an import trade with foreign milk. It is sincerely to be hoped that this will not be of a permanent character, as there can be no doubt that milk is a very apt medium for the conveyance of disease. On this subject, Mr. George Adams, the well known Oxford Down breeder, of the Royal Prize Farm, Pidnell, Faringdon, writes as follows:—

Although the deplorable state of British agriculture is so frequently brought before the notice of your readers, I have not yet seen any reference made to a subject which merits the grave consideration of the general public, as it affects them very closely. I refer to the foreign milk trade. It is an admitted fact that, thanks to the energetic measures adopted by Mr. H. Chaplin, M.P., and so ably carried out by his successor, Mr. H. Gardner, M.P., disease among cattle in the British Isles has become materially reduced and in some of its worst forms has been eradicated altogether, while in foreign counties, owing to want of legislation, disease among cattle is very prevalent and often virulent. Large quantities of milk are being daily imported from these infected districts and retailed out to the consumer. From such a source the milk is necessarily contaminated and must be the cause of many mysterious outbreaks of disease among the consumers, who are too frequently in blissful ignorance of its cause, and I have cases in which foot-and-mouth disease has been conveyed through the milk to sheep, pigs, and human beings. The home producer is subject to stringent regulations and frequent visits from medical officers and sanitary inspectors appointed by Government, and the best dairy firms in London and other cities also appoint special inspectors to periodically go round the dairies of farmers supplying milk to them. Such a state of things calls for some remedy, and, in the absence of any legislation to exclude milk from infected foreign districts, it behoves the consumers to be most careful when disease is known to be prevalent in these districts supplying the London and other large markets to ascertain from what source their milk is obtained, and, if possible, to insist that they shall be supplied with home-produced

milk, such as is supplied by the principal London firms, and not that which is too often hawked round the streets by unscrupulous vendors who, by virtue of the inferior quality of their milk, are able to undersell the legitimate traders.

The importance of the subject is certainly not underestimated by Mr. Adams, and it is to be hoped that it will have the immediate attention of the Veterinary Department of the Board of Agriculture.

Obituary.

MR. JOHN GRANT.

The district of Rayne, Inveruries, has just lost by death one of its best known and most respected public men in the person of Mr. John Grant, V.S., who died on Saturday from blood poisoning contracted in the course of his professional duty, his illness only lasting two days. Mr. Grant, who was a native of Moss-side, Fyvie, graduated at Dick College, Edinburgh, his diploma bearing date April, 1868, and settled down in Rayne some 25 years ago. His quiet and genial manner quickly made him a great favourite in the district, and he had soon a large practice, added to which he has for the last few years acted as local inspector under the Contagious Diseases (Animals) Acts. Although he did not take any prominent part in Imperial politics, he interested himself to a very considerable extent in all local matters, and was for many years a member of the School Board. He will be greatly missed all over the district, as he had many friends among the agricultural community, and his opinion was frequently sought on many matters not strictly connected with his professional pursuits, while he very often acted as mediator in disputes between neighbours. To the poor of the parish he was a firm friend and a generous benefactor, and they, more than the others, will have reason to lament his loss. He was only 47 years of age, and leaves a widow and eight of a family.

A correspondent writes:—It is with deep regret that I enclose cutting from one of our local newspapers, announcing the death of Mr. Grant. The blood poisoning was contracted while he was making a post-mortem examination on the carcase of an animal which had died of Anthrax. By his death the profession has lost one of its best members who besides being an expert surgeon was an out and out gentleman to meet in consultation, which I have often had the pleasure of experiencing. Our practices were contiguous, and I have been intimately acquainted with him during the long time he has been in practice in Rayne. Seeing that the County Council could afford to give their late clerk £1400 yearly, and their inspectors only six shillings for what has cost Mr. Grant his life, it is to be hoped they will see their way to do something for his widow and family.

CORRESPONDENCE

CASTRATION.

If readers of *The Record* are not by this time quite tired of this subject, kindly grant me a small space in your next.

We are quite prepared for anything in the dictator line in South America, but surely it is a novelty to find one at our own door. Who is this Mr. McConnell? By what authority does he assume such a style and dogmatically assert as fact what to the experience of many others is the direct opposite? Can such literature do any good? Certainly not, but a great deal of harm if taken seriously by any young man.

You have all heard of the man who could prove that "Honesty is the best policy" because he had tried both ways. Well, I have tried both ways of castrating, and would as soon dream of casting a horse to give him a ball as to cast him to castrate him. It may be news to Mr. McConnell to learn that I have operated on colts with inguinal hernia, and have also operated by clam, by ecraseur, and by ligature, all with the colt standing, and with the best results, and further that the only accidents ever I had to self, assistant, or colt, was by the casting operation. Only this day I castrated an aged Clydesdale stallion in eight minutes; I had only two men with me, and I assert that from his character and size it would have taken eight men to put him down right, and have no idea how long the operation would have taken. I have drawn the ropes to cast and castrate a score of colts in one day, and I would rather cut ten standing than with a lot of strange men commence to cast one aged horse. I have never yet met one I could not castrate standing, although I admit I have had several colts so wild and frightened that it might have been better to put them down, but these are very rare indeed.

His remarks about "groping in the dark—better operation—expense—more scientific," etc. etc., I will not notice, but to put the matter in short will assert that I can cut colts more quickly, with as much safety to myself and far more to colt, make a better job, have as many recoveries, and that without one tenth part of the show to the owner or annoyance to colt, with the animal on his legs and one man holding him, as Mr. McConnell can do by any casting operation he may name. So soon as Mr. McConnell, or any other luminary, can teach me a better style I will adopt it, but surely the age is long since past when any body of gentlemen can seriously be expected to accept as fact such a theoretical, dictatorial effusion. If Mr. McConnell is in earnest let him remember that "Facts are chiels that winna ding," and my advice to him is to let us have a few as soon as possible.

COUNTRY VET.

SIR,

In a criticism by Juvenis, on castrating standing versus chloroform in last weeks *Record*, in paragraph 6, Mr. McConnell is thanked for his papers on castration of cryptorchids, and assured his directions carried out give very successful results. I shall be much obliged if either you or "Juvenis" will kindly tell me where Mr. McConnell's articles are to be found, as I think they have never been in *The Record*.

I have never seen a good practical article on the cutting of rigs from anyone who does the operation, nor do the text books describe it. In my experience all the operators profess to possess some great secret in the art. I am anxious to try the operation myself if I could see some good directions, and I hope some one will be good enough to say where the articles referred to are to be found.

COUNTRY VET.

[We think the article appeared in *The Journal of Comparative Pathology*.—ED.

SOME INIQUITIES OF COMPETITION.

SIR,

In your issue of the 14th inst. a letter appears from an anonymous correspondent under the superscription of "Some Iniquities of Competition." In the said letter the following statement is made:—"A book recently published, called "Veterinary Counter Practice for Chemists" is, according to the title page, written by the Professors of the Royal Veterinary Colleges of London and Edinburgh." As your anonymous correspondent does not give the title page of the book mentioned and as I am wholly unacquainted with it, I should like to ask him on what ground, or by what right, he bases his assumption that the professors of this College have had anything to do with its production.

Your obedient servant,

THOMAS WALLEY, Principal.

MILK FEVER.

DEAR SIR,

After a fortnight's thoughtful consideration Mr. Mc Connell enters the field; first, to convince me against my will, and finally, to annihilate me by my own showing. Mr. McConnell says that no thanks are due for me using his extract, which he says "is no argument at all." Now I think it is the very best argument. Why should we have such grave symptoms by the sudden stoppage of the secretion of milk at the time of parturition, which symptoms are not observed at any other time consequent to the sudden cessation of the lactic secretion? Mr. McConnell asks the question and says he wants to know why—yes, we all want to know why; and if this could be answered to the satisfaction of all, the true pathology of milk fever would be arrived at. So I made a guess—yes! Mr. Editor, a guess.—That it was due to the materials—elements—in the system at the time of parturition, which should be converted into colostrum by the action of the mammary gland. Mr. McConnell says, that the elimination of the elements of colostrum from the blood has nothing to do with the production of milk fever. Then, I ask, what has? He further says that the difference between colostrum and milk was not to be found in the blood. No! Mr. McConnell, nor is fibrin—as fibrin—found in the blood, nor in normal condftions is bile, urine, milk, or, I say, colostrum found in the blood; yet where do they come from if not from the blood?

I think, it is admitted, that there is general hyperæmia at the time of parturition. Even Mr. Barron, in his article in *The Veterinary Record* of February 25th says, "Pathological hyperæmia is, in my opinion, the primary cause of milk fever." May I ask to what is this hyperæmic condition due, if not to over loaded state of of the system?

I think Mr. McConnell and myself are agreed that the sudden withdrawal of all the milk at once, from the udder is the *exciting cause* of milk fever. Now if no milk be drawn as in cases named by him and—which I have seen over and over again—there are no bad effects produced. Nay, I know of cases where heavy milkers have neither been touched by calf or hand for three or four days, as a preventive of milk fever, with the most satisfactory results—the materials or elements which should have been converted into colostrum by the natural action of the mammary gland, having been eliminated from the system by other channels—such as the kidneys, in an uncombined form. Mr. Barron says, in the article referred to above, that he has "tested typical samples of urine and examined them microscopically, when albumen and broken down corpuscles"—(*albumen and broken down corpuscles; mark ye*)—"were present in great quantities." We must have the exciting cause just as the one half to one mile exercise is accessory to the cause of azoturia in well-to-do horses, so—in my opinion—in this case is sudden withdrawal of the milk the exciting cause, the too quick removal of the pressure inducing paralysis or "*collapse*" of the udder, when, in consequence, the loaded colostrum elements unable to gain their proper outlet, are thrown on the system establishing their toxic action and, according to the severity of the attention, either causing death, or being eliminated from the system by other excretory organs.

In annihilating me by my own showing, I think Mr. McConnell might have been more generous and quoted the whole extract but, to suit his own purpose, he stops short, and says nothing about the urine being "thick and oily with a peculiar smell." I think, however, I have said sufficient above to show that after establishing toxic action, the matters are thrown off as already named—in an uncombined state—just as the effects of chloroform, morphia and overdoses of spirit are got rid of.

In reply to my question as to how chloral hydrate establishes its action Mr. McConnell's reply is "Simply by *absorption*." May I ask in return—What next? Does he mean to tell the profession that from ¾ to 1 ounce of chloral hydrate put into the big cuticular stomach of a cow is so readily absorbed, especially when the animal is in a coma-paralytic state. First Mr. McConnell tried chloral hydrate and potass-bromide combined; then he found that chloral itself would do Next, may I ask, has he ever tried bromide of potassium, by itself, a cup of tea or coffee, or better still a bottle of coloured cold water?

It seems very remarkable that Mr. McConnell relates a case, in *The Veterinary Record* September 23d, p. 170, of a cow in red-water, where she received in seven days:—

Treacle	41 lbs.	Sodi-Bicarb	8 ozs.
Epsom Salts	4½ lbs.	Potas-Nitrat	2 ozs.
Tinct. Ferri	12 ozs.	Tea	1½ lbs.
Linseed Oil	125 ozs.	Jalap	1½ ozs.
Turpentine	3 ozs.	Ginger	4 ozs.
Aloes	7 drs.	Acid Sulp Arom	6 ozs.

(Oh lor! Wot a cow!!!!!).

Mr. McConnell finishes off with the comforting statement that she survived.—Ye Gods! What would the ancients say?

How then does it happen that all these materials were not absorbed and had not established their action under seven days. Yet Mr. McConnell tells us that chloral is simply absorbed, but how about its action, as the recorded cases appear to recover rapidly.

I wish now to correct a few misprints in my letter in September 30th edition. An hydræmic should read an hydrœmic, repressed should read expelled, nutrition should be imitation.

In answer to Mr. Parlane Walker's question, I may say that the cow was a very heavy milker, for weeks after calving she was milked three times a day and gave 14lbs. of butter per week.

With reference to Mr. Barron's letter of October 7th referring me to *The Record* of February 25th for his theory: I have read the article and must say it is much too "scientific" for me, however. I should like to know if this long explanation is guess work, or from microscopic observation and scientific research.

Now Mr. Editor, a word with you with reference to your editorial on guessing on September 23rd. If guessing and plagiarism were expunged from all articles, I am afraid that the leaves of the valuable little *Record* would be nearly blank. I have heard you say yourself that you were no microscopist. No more am I. Yet our great experts in the microscope differ very materially from one another. One takes a section of lung and pronounces it broncho-pneumonia; another takes a section of the same lung and says it is pleuro-pneumonia epizootica. Another microscopic expert says that louping-ill is due to a parasite—the white tick; whilst another says that louping-ill is infectious, contagious, and that its progress is stopped by a wire fence. Well, now, Mr. Editor, would you deprive us non-microscopists of the pleasure of reasoning from analogy when driving along the green lanes we have so often gone over. Nothing fresh to see, we fall into that reflective reverie of guessing at pathology; while the conclusion arrived at may possibly be the point that puts the microscopists on the proper scent for the discovery. Claiming your kind indulgence for my lengthy communication, yours respectfully,

H. THOMPSON, M.R.C.V.S.

Aspatria, Oct. 17th, 1893.

COMMUNICATIONS, BOOKS, AND PAPERS RECEIVED:—Prof. Walley, Messrs. H. Thompson, Jas. Blakeway, T. Mellis, Spencer Bailey, "Country Vet." "Country Vet." "Country Vet." "Journal of Comp. Pathology," "American Vety. Review," "The Madras Times."